RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10 596,024
Source: ITW
Date Processed by STIC: 3/20/07

ENTERED

RAW SEQUENCE LISTING   DATE: 03/20/2007
PATENT APPLICATION: **US/10/596,024**   TIME: 15:02:12

Input Set : **N:\efs\03_20_07\10596024_efs\PAT_989W_2_SEQUENCE_LISTING.txt**
Output Set: **N:\CRF4\03202007\J596024.raw**

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   3 <110> APPLICANT: MIETKIEWSKA, Elzbieta et al.
   5 <120> TITLE OF INVENTION: FATTY ACID ELONGASE (FAE) GENES AND THEIR UTILITY IN
INCREASING
   6        ERUCIC ACID AND OTHER VERY LONG-CHAIN FATTY ACID PROPORTIONS IN
   7        SEED OIL
   9 <130> FILE REFERENCE: PAT 989W-2
  11 <140> CURRENT APPLICATION NUMBER: US 10/596,024
C--> 12 <141> CURRENT FILING DATE: 2006-05-25
  14 <150> PRIOR APPLICATION NUMBER: US 60/524;645
  15 <151> PRIOR FILING DATE: 2003-11-25
  17 <160> NUMBER OF SEQ ID NOS: 27
  19 <170> SOFTWARE: PatentIn version 3.2
  21 <210> SEQ ID NO: 1
  22 <211> LENGTH: 18
  23 <212> TYPE: DNA
  24 <213> ORGANISM: Artificial
  26 <220> FEATURE:
  27 <223> OTHER INFORMATION: F1 Forward Primer
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  35 <211> LENGTH: 6
  36 <212> TYPE: PRT
  37 <213> ORGANISM: Artificial
  39 <220> FEATURE:
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  45 1               5
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  51 <213> ORGANISM: Artificial
  53 <220> FEATURE:
  54 <223> OTHER INFORMATION: R1 Reverse Primer
  56 <400> SEQUENCE: 3
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  62 <211> LENGTH: 6
  63 <212> TYPE: PRT
  64 <213> ORGANISM: Artificial
  66 <220> FEATURE:
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  69 <400> SEQUENCE: 4
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72 1               5
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81 <223> OTHER INFORMATION: P Forward Primer
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89 <211> LENGTH: 23
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial
93 <220> FEATURE:
94 <223> OTHER INFORMATION: PR Reverse Primer
96 <400> SEQUENCE: 6
98 ttaatttaat ggaacctcaa ccg                                      23
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102 <211> LENGTH: 32
103 <212> TYPE: DNA
104 <213> ORGANISM: Artificial
106 <220> FEATURE:
107 <223> OTHER INFORMATION: F2 Forward Primer
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115 <211> LENGTH: 33
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial
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122 <400> SEQUENCE: 8
124 gtttccaaat cggtgaagcg acatcctcga tgg                           33
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128 <211> LENGTH: 25
129 <212> TYPE: DNA
130 <213> ORGANISM: Artificial
132 <220> FEATURE:
133 <223> OTHER INFORMATION: F3 Forward Primer
135 <400> SEQUENCE: 9
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141 <211> LENGTH: 30
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial
145 <220> FEATURE:
146 <223> OTHER INFORMATION: R3 Reverse Primer
148 <400> SEQUENCE: 10
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155 <212> TYPE: DNA
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158 <220> FEATURE:
159 <223> OTHER INFORMATION: R4 Reverse Primer
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167 <211> LENGTH: 17
168 <212> TYPE: DNA
169 <213> ORGANISM: Artificial
171 <220> FEATURE:
172 <223> OTHER INFORMATION: F4 Forward Primer
174 <400> SEQUENCE: 12
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179 <210> SEQ ID NO: 13
180 <211> LENGTH: 22
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial
184 <220> FEATURE:
185 <223> OTHER INFORMATION: R5 Reverse Primer
187 <400> SEQUENCE: 13
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192 <210> SEQ ID NO: 14
193 <211> LENGTH: 24
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial
197 <220> FEATURE:
198 <223> OTHER INFORMATION: F5 Forward Primer
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205 <210> SEQ ID NO: 15
206 <211> LENGTH: 21
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial
210 <220> FEATURE:
211 <223> OTHER INFORMATION: R6 Reverse Primer
213 <400> SEQUENCE: 15
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219 <211> LENGTH: 29
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial
223 <220> FEATURE:
224 <223> OTHER INFORMATION: F6 Forward Primer
226 <400> SEQUENCE: 16
228 tatctagaat gacgtccatt aacgtaaag                                 29
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Output Set: N:\CRF4\03202007\J596024.raw

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233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial
236 <220> FEATURE:
237 <223> OTHER INFORMATION: R7 Reverse Primer
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245 <211> LENGTH: 22
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial
249 <220> FEATURE:
250 <223> OTHER INFORMATION: NN-3 Primer
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258 <211> LENGTH: 21
259 <212> TYPE: DNA
260 <213> ORGANISM: Artificial
262 <220> FEATURE:
263 <223> OTHER INFORMATION: NN-4 Primer
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271 <211> LENGTH: 32
272 <212> TYPE: DNA
273 <213> ORGANISM: Artificial
275 <220> FEATURE:
276 <223> OTHER INFORMATION: OM087 Primer
278 <400> SEQUENCE: 20
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283 <210> SEQ ID NO: 21
284 <211> LENGTH: 33
285 <212> TYPE: DNA
286 <213> ORGANISM: Artificial
288 <220> FEATURE:
289 <223> OTHER INFORMATION: OM088 Primer
291 <400> SEQUENCE: 21
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296 <210> SEQ ID NO: 22
297 <211> LENGTH: 503
298 <212> TYPE: PRT
299 <213> ORGANISM: Tropaeolum majus
301 <400> SEQUENCE: 22
303 Met Ser Gly Thr Lys Ala Thr Ser Val Ser Val Pro Leu Pro Asp Phe
304 1               5                   10                  15
306 Lys Gln Ser Val Asn Leu Lys Tyr Val Lys Leu Gly Tyr His Tyr Ser
307             20                  25                  30
```

```
309 Ile Thr His Ala Met Tyr Leu Phe Leu Thr Pro Leu Leu Leu Ile Met
310         35              40              45
312 Ser Ala Gln Ile Ser Thr Phe Ser Ile Gln Asp Phe His His Leu Tyr
313         50              55              60
315 Asn His Leu Ile Leu His Asn Leu Ser Ser Leu Ile Leu Cys Ile Ala
316 65              70              75              80
318 Leu Leu Leu Phe Val Leu Thr Leu Tyr Phe Leu Thr Arg Pro Thr Pro
319         85              90              95
321 Val Tyr Leu Leu Asn Phe Ser Cys Tyr Lys Pro Asp Ala Ile His Lys
322         100             105             110
324 Cys Asp Arg Arg Arg Phe Met Asp Thr Ile Arg Gly Met Gly Thr Tyr
325         115             120             125
327 Thr Glu Glu Asn Ile Glu Phe Gln Arg Lys Val Leu Glu Arg Ser Gly
328         130             135             140
330 Ile Gly Glu Ser Ser Tyr Leu Pro Pro Thr Val Phe Lys Ile Pro Pro
331 145             150             155             160
333 Arg Val Tyr Asp Ala Glu Glu Arg Ala Glu Ala Glu Met Leu Met Phe
334         165             170             175
336 Gly Ala Val Asp Gly Leu Phe Glu Lys Ile Ser Val Lys Pro Asn Gln
337         180             185             190
339 Ile Gly Val Leu Val Val Asn Cys Gly Leu Phe Asn Pro Ile Pro Ser
340         195             200             205
342 Leu Ser Ser Met Ile Val Asn Arg Tyr Lys Met Arg Gly Asn Val Phe
343         210             215             220
345 Ser Tyr Asn Leu Gly Gly Met Gly Cys Ser Ala Gly Val Ile Ser Ile
346 225             230             235             240
348 Asp Leu Ala Lys Asp Leu Leu Gln Val Arg Pro Asn Ser Tyr Ala Leu
349         245             250             255
351 Val Val Ser Leu Glu Cys Ile Ser Lys Asn Leu Tyr Leu Gly Glu Gln
352         260             265             270
354 Arg Ser Met Leu Val Ser Asn Cys Leu Phe Arg Met Gly Gly Ala Ala
355         275             280             285
357 Ile Leu Leu Ser Asn Lys Met Ser Asp Arg Trp Arg Ser Lys Tyr Arg
358         290             295             300
361 Leu Val His Thr Val Arg Thr His Lys Gly Thr Glu Asp Asn Cys Phe
362 305             310             315             320
364 Ser Cys Val Thr Arg Lys Glu Asp Ser Asp Gly Lys Ile Gly Ile Ser
365         325             330             335
367 Leu Ser Lys Asn Leu Met Ala Val Ala Gly Asp Ala Leu Lys Thr Asn
368         340             345             350
370 Ile Thr Thr Leu Gly Pro Leu Val Leu Pro Met Ser Glu Gln Leu Leu
371         355             360             365
373 Phe Phe Ala Thr Leu Val Gly Lys Lys Val Phe Lys Met Lys Leu Gln
374         370             375             380
376 Pro Tyr Ile Pro Asp Phe Lys Leu Ala Phe Glu His Phe Cys Ile His
377 385             390             395             400
379 Ala Gly Gly Arg Ala Val Leu Asp Glu Leu Glu Lys Asn Leu Lys Leu
380         405             410             415
382 Ser Ser Trp His Met Glu Pro Ser Arg Met Ser Leu Tyr Arg Phe Gly
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Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21

VERIFICATION SUMMARY   DATE: 03/20/2007
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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date